

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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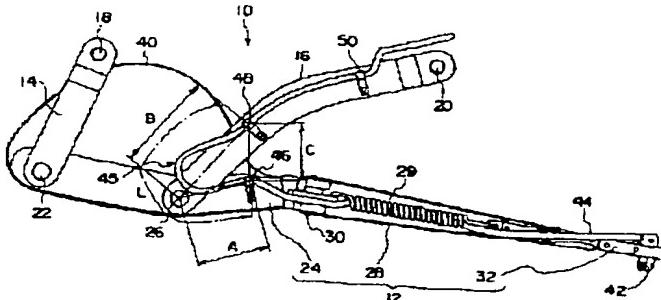
APPLICATION DATE : 16-12-98  
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TITLE : WIPER DEVICE FOR VEHICLE



**ABSTRACT :** PROBLEM TO BE SOLVED: To prevent a piping hose from being exposed to the outside unnecessarily by locking and holding a piping hole in a first clamp part provided on a wiper arm and a second clamp part provided in a sub-lever, and providing a slackening part of a specified length between the first clamp part and the second clamp part.

SOLUTION: A piping hose 44 is held and fixed by a first clamp 46 and a second clamp 48, and a slackening part 45 is provided in the piping hose 44 between the clamps. The length of the slackening part 45 is set to establish the expression:  $A+B>L>C$ , wherein A is the distance between the axial center of a connecting shaft 26 of a sub-lever 16 and a wiper arm 12 and a clamp 46, B is the distance between the axial center of the connecting shaft 26 and the clamp 48, C is the distance between the first clamp 46 and the second clamp 48, and L is the length of the slackening part 45. By this arrangement, the slackening part 45 can be minimized so that the piping hose 44 can be prevented from being exposed to the outside from a 4-node link mechanism part unnecessarily.

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